

REMARKS

Reconsideration is respectfully requested in view of any changes to the claims and the remarks herein. Please contact the undersigned to conduct a telephone interview in accordance with MPEP 713.01 to resolve any remaining requirements and/or issues prior to sending another Office Action. Relevant portions of MPEP 713.01 are included on the signature page of this amendment.

Claims 21-23 have been added. (see specification page 8, lines 8-28) Support for claim 21 is found in Fig. 3 of the present application as the combination of elements 54 and 56 (page 8, lines 15 "layer of 56 of high reflective index"; page 8, line 21-22 "low index ... layer 54).and in Fig. 4 of the parent application 08/542,753 as the combination of elements 34 and 36 (see the paragraph bridging pages 6-7 of applicant's response of 6/30/05). There is no teaching, suggestion motivation or incentive for added claims 21-23 in the references cited by the Examiner.

Claim Rejections - 35 USC §112

Claim 17-20 have been rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant's regard as their invention. The Examiner states in the paragraph at the bottom of page 2:

Evidence that claims fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in the reply filed 6/30/05. In that paper, applicant has stated that the instant claims read on the invention of 08/542,753, and this statement indicates that the invention is different from what is defined in the claim(s) because the means of the instant application claims are not shown in the parent application 08/542,753, implying applicants claims are not what applicant intends to claim, in an attempt to argue in the reply of 6/30/05 that the written description requirement is met, applicant employs the same element, the liquid crystal layer, for both the liquid crystal layer and the reflecting means. This is clearly an unreasonable interpretation of language, first because the claim clearly recites two separate elements, and second because the liquid crystal layer is clearly not an equivalent means to the means

of the instant specification, as the means of the specification are particular structured elements.

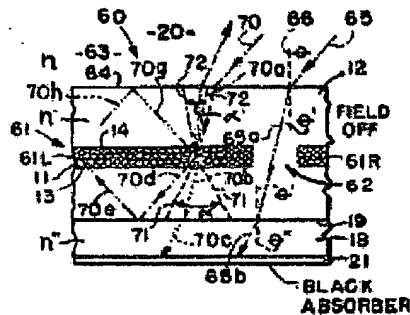
Applicant has shown that 08/542,753 has at least one embodiment that comes within the scope of applicant's claims so that applicant can claim the benefit of the filing date of 08/542,753. In the passage quoted above the Examiner states "because the means of the instant application claims are not shown in the parent application 08/542,753, implying applicants claims are not what applicant intends to claim, in an attempt to argue in the reply of 6/30/05 that the written description requirement is met, applicant employs the same element, the liquid crystal layer, for both the liquid crystal layer and the reflecting means." In this passage the Examiner does not state what "means of the instant application" is being referred to. Consequently for applicant to respond to this statement applicant must "guess at" what means the Examiner is referring to. Applicant requests that the Examiner clarify what means is being referred to. In applicant's response of 6/30/05 applicant explained in detail with the use of a chart where there is in 08/542,753 the description of at least one embodiment that comes within the scope of the claims of the present application. The examiner has not rebutted this. The Examiner's statement in the above quoted passage "applicant employs the same element, the liquid crystal layer, for both the liquid crystal layer and the reflecting means" is incorrect. Applicant does not "employ ... the liquid crystal layer ...[as] ... the reflecting element." The reflecting element of the present application and of 08/542,753 are substantially the same and are thus equivalent to each other. This has been described in detail in applicant's response of 6/30/05.

The Examiner further states at the bottom of page 2 and at the top of page 3

If in fact applicant's reading of the claim were correct, which it is not, numerous other prior art references would become available as prior art, such as, for example, Ferguson 4,591,233, which shows a liquid crystal layer and a single layer which has some degree of angle selectivity (See cover figure). Even further, any PDLC such as that of Ferguson has some degree of angle selectivity, as off angle sees a longer path length through the liquid crystal layer and

therefore an increased probability of scattering, so the clear would read on thousands of references such as the Fergason reference. Those references are not applied because the reading of the claim applied by applicant is not considered reasonable.

Fig. 4 of Fergason is



Fergason teaches at Col. 19, lines 5-12 :

The index of refraction of the electrodes 13,14 usually will be higher than that (those) of the containment medium and support medium and the containment and support media indices of refraction preferably are at least about the same. Therefore, the light passing from the containment medium into the electrode material will bend toward the normal, and that passing from the electrode into the support medium will bend away from the normal; the net effect of the electrode thus being nil or substantially negligible. Accordingly, the majority of total internal reflection will occur at the interfaces 19,64.

Fergason teaches at Col. 6, lines 46-49:

FIGS. 4 and 5 are schematic representations of a liquid crystal apparatus according to one embodiment of the invention, respectively in a no-field condition and in an applied electric field condition;

Thus Fergason teaches at Col. 19 lines 1-2 "layer 61 of encapsulated liquid crystals 11." Layer 61 of encapsulated liquid crystals 11 is between electrodes 13, 14 which is on either side of the layer 61. And since as Fergason teaches at Col. 19. lines 22-24 "internal reflection will occur at the interfaces 19,64," Fergason cannot anticipate the claims of the present application.

Applicants claims recite:

a first substrate on the light incident side and a second substrate on the opposite side enclosing the liquid crystalline material, reflecting means between said first and second substrates

Thus applicants claims include within their scope a liquid crystal material between the first and second substrate and a reflecting means also between the first and second substrate. Fergason does not teach this, but teaches reflecting surfaces 19 and 64 that are not between the electrodes 13 and 14 and thus not between the first and second substrates as recited in applicants claims. Thus Fergason cannot anticipate applicants claims.

The Examiner further states at the top of page 3:

Even further, for the absorbing means, applicant again points to the same liquid crystal layer as for the other means above, which again is unreasonable and manifestly not equivalent means to an absorbing layer. So applicant uses the same layer for three claimed elements- a wholly unreasonable interpretation. Therefore, the current claims are not what applicant believes to be his invention, if applicant believes it to be that which is disclosed in 08/542/753.

Applicant disagrees with the Examiner's understanding of applicant's response dated 6/30/05. It is incorrect to state, as the Examiner has done, that "applicant uses the same layer for three claimed elements-" since applicant has not stated this in the response dated 6/30/05.

Claim Rejections - 35 USC § 102

Claims 17 -19 have been rejected under 35 U.S.C. 102(b). The Examiner states "as being anticipated by Cornelissen et al (in view of Fergason 4,591,233 as evidence that the claimed means are not equivalent to the means of parent application 08/542,753)." For a reference to be an anticipation it must contain all elements of the claim. Since the Examiner is relying on two references Cornelissen cannot anticipate applicant's claims 17-19.

The Examiner further states at page 4:

Claim 17-19 is written to, and Comelissen et al discloses (cover figure) a liquid crystal display with an incident and opposite side (the equivalent to 14 and 9 of Neijzen), diffusing liquid crystal (the equivalent to 5 of Neijzen), a and reflecting means (the equivalent to 15 of Neijzen) between the first and second substrates which reflects light larger than a given angle and passes light below a given angle (see abstract), and an absorber (the equivalent to 10 of Neijzen) on the other side. Structured and multilayer embodiments are shown (illustrated in figs 4 and 6). Therefore, these claims 17-19 are anticipated by this reference.

In this text the Examiner does not clearly identify what the Examiner believes is the reflecting means in Comelissen.

The Examiner further states at page 4:

Applicant has amended the specification to make the current application a continuation in part of application no. 08/542,753. However, the written description requirement is clearly not met by that application in respect to claims 17-20, as the operation of the device of that application is completely different, and as the device lacks elements of the claims including the absorbing of light passed by the reflecting means.

Applicant respectfully disagrees with the Examiner's statement "as the operation of the device of that application [08/542,753] is completely different." Applicant as shown that 08/542,753 has at least one embodiment that comes within the scope of the claims of the present application and thus is entitled to claim the benefit of 08/542,753 as described in applicant's response of 6/30/05.

The Examiner further states at pages 4 and 5:

Here the effective filing date of the application does not go back to the continuation in part, as the written description is not met as there is not reflective means as claimed. In an attempt to argue in the reply of 6/30/05 that the written description requirement is met, applicant employs the same element, the liquid crystal layer, for both the liquid crystal layer and the reflecting means. This is clearly an unreasonable interpretation of language, first because the claim clearly recites two separate elements, and second because the liquid crystal layer is clearly not an equivalent means to the means of the instant specification, as the means of the specification are particular structured elements. If in fact applicant's reading of the

claim were correct, which it is not, numerous other prior art references would become available as prior art, such as, for example, Ferguson 4,591,233, which shows a liquid crystal layer and a single layer which has some degree of angle selectivity (See cover figure). Even further, any PDLC such as that of Ferguson has some degree of angle selectivity, as off angle sees a longer path length through the liquid crystal layer and therefore an increased probability of scattering, so the clear would read on thousands of references such as the Ferguson reference. Even further, for the absorbing means, applicant again points to the same liquid crystal layer as for the other means above, which again is unreasonable and manifestly not equivalent means to an absorbing layer. So applicant uses the same layer for three claimed elements- a wholly unreasonable interpretation. Those references are not applied because the reading of the claim applied by applicant is not considered reasonable.

Applicant disagrees with the Examiner's statement that "the effective filing date of the application does not go back to the continuation in part, as the written description is not met as there is not reflective means as claimed." The Examiner makes this statement based on a misunderstanding of applicant's response of 6/30/05, that is the Examiner's statement in the passage above "applicant employs the same element, the liquid crystal layer, for both the liquid crystal layer and the reflecting means" is incorrect. Applicant's response of 6/30/05 at page 6 states element 28 of Fig. 2 of the of application no. 08/542,753 is an embodiment of the reflecting means of applicant's claim 1. Element 28 of Fig. 2 of the of application no. 08/542,753 is not a liquid crystal material - see the paragraph bridging pages 6 and 7 of applicant's response of 6/30/05.

Claims 17 -20 have been rejected under 35 U.S.C. 102(e) as being anticipated by Neijzen, U.S. Patent No. 5,929,956 . The Examiner states applicant's claims are "anticipated by Neijzen, U.S. Patent No. 5,929,956 . (in view of Ferguson 4,591,233 as evidence that the claimed means are not equivalent to the means of parent application 08/542,753)." For a reference to anticipate applicant's claims the reference must contain all the elements of applicant's claims. Since the Examiner is relying on two references Neijzen and Ferguson, applicant's claims cannot be anticipated by Neijzen.

The Examiner further states at page:

Claim 17-19 is written to, and Neijzen et al discloses (fig 3a-3c) a liquid crystal display with an incident and opposite side 14 and 9, diffusing liquid crystal 5, a and reflecting means 15 between the first and second substrates which reflects light larger than a given angle and passes light below a given angle (see abstract), and an absorber 10 on the other side. Structured and multilayer embodiments are shown (illustrated in figs 4 and 6). Therefore, these claims 17-19 are anticipated by this reference.

Neijzen, U.S. Patent No. 5,929,956 is not a valid reference since the present application is a CIP of application 08/542,753 which describes at least one embodiment that comes within the scope of the applicant's claims.

The Examiner states at pages 5-6:

Applicant has amended the specification to make the current application a continuation in part of application no. 08/542,753. However, the written description requirement is clearly not met by that application in respect to claims 17-20, as the operation of the device of that application is completely different, and as the device lacks elements of the claims including the absorbing of light passed by the reflecting means. Here the effective filing date of the application does not go back to the continuation in part, as the written description is not met as there is not reflective means as claimed. In an attempt to argue in the reply of 6/30/05 that the written description requirement is met, applicant employs the same element, the liquid crystal layer, for both the liquid crystal layer and the reflecting means. This is clearly an unreasonable interpretation of language, first because the claim clearly recites two separate elements, and second because the liquid crystal layer is clearly not an equivalent means to the means of the instant specification, as the means of the specification are particular structured elements. If in fact applicant's reading of the claim were correct, which it is not, numerous other prior art references would become available as prior art, such as, for example, Ferguson 4,591,233, which shows a liquid crystal layer and a single layer which has some degree of angle selectivity (See cover figure). Even further, any PDLC such as that of Ferguson has some degree of angle selectivity, as off angle sees a longer path length through the liquid crystal layer and therefore an increased probability of scattering, so the claim would read on thousands of references such as the Ferguson reference. Those references are not applied because the reading of the claim applied by applicant is not considered reasonable. Even further, for the absorbing means, applicant again points to the same liquid crystal layer as for the other means above, which again is

unreasonable and manifestly not equivalent means to an absorbing layer. So applicant uses the same layer for three claimed elements- a wholly unreasonable interpretation.

In this quoted passage the Examiner has repeated again what the Examiner stated earlier in the office action which applicant has responded to above. As noted above the Examiner's comments are based on a misunderstanding of applicants response of 6/30/2005. In the passage quoted above the Examiner states "applicant employs the same element, the liquid crystal layer, for both the liquid crystal layer and the reflecting means." As note above applicant has not stated this.

At page 6 of the office action the Examiner states:

Claim 20 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Neijzen, WO 98/23996 (in view of Fergason 4,591,233 as evidence that the claimed means are not equivalent to the means of parent application 08/542,753) Claim 20 written to, and Neijzen et al discloses (fig 3a-3c) a liquid crystal display with an incident and opposite side 14 and 9, diffusing liquid crystal 5, a and reflecting means 15 between the first and second substrates which reflects light larger than a given angle and passes light below a given angle (see abstract), and an absorber 10 on the other side. An angle dependent diffuser (illustrated in figs 4 and 6). Therefore, this claim is anticipated by this reference. Please note that the diffuser has not been given the date of the parent application, as the angle dependent diffusing layer was not present in the parent case, and as no angle dependent diffusing was described as one of ordinary skill would not have determined that applicant was in possession of the combination with that feature. In fact, the parent application described the angle dependent reflector as having "specularly reflecting" surfaces- clearly not diffusing, and even more particularly not angularly dependently defusing.

For a reference to be an anticipation it must contain all elements of the claim. Since the Examiner is relying on two references Neijzen, WO 98/23996 cannot anticipate applicant's claim 20. In the passage quoted above the Examiner states "Please note that the diffuser has not been given the date of the parent application, as the angle dependent diffusing layer was not present in the parent case, and as no angle dependent diffusing was described as one of ordinary skill would not have determined that applicant was in possession of the

combination with that feature." Applicant disagrees as stated by applicant in the response of 6/30/05 at pages 6-7.

The Examiner states at page 7 of the office action;

Applicants application original application 09/154019 only disclosed mirror like reflectors, and claimed and discussed the reflectors having angular dependent reflection. Diffuse reflecting reflectors are a specific type which were not disclosed, and therefore would not be considered as meeting the written description requirement, but further, the claims now being angular dependent diffusers- and clearly none of the previous embodiments disclosed a diffusion angular dependence.

Applicant respectfully disagrees and requests the Examiner to identify where in 09/154,019 there is support for what the Examiner is asserting in this paragraph.

In the paragraph bridging pages 7 and 8 of the office action the Examiner states:

Applicant has amended the specification to make the current application a continuation in part of application no. 08/542,753. However, the written description requirement is clearly not met by that application in respect to claims 17-20, as the operation of the device of that application is completely different, and as the device lacks elements of the claims including the absorbing of light passed by the reflecting means. Here the effective filing date of the application does not go back to the continuation in part, as the written description is not met as there is not reflective means as claimed. In an attempt to argue in the reply of 6/30/05 that the written description requirement is met, applicant employs the same element, the liquid crystal layer, for both the liquid crystal layer and the reflecting means. This is clearly an unreasonable interpretation of language, first because the claim clearly recites two separate elements, and second because the liquid crystal layer is clearly not an equivalent means to the means of the instant specification, as the means of the specification are particular structured elements. If in fact applicant's reading of the claim were correct, which it is not, numerous other prior art references would become available as prior art, such as, for example, Ferguson 4,591,233, which shows a liquid crystal layer and a single layer which has some degree of angle selectivity (See cover figure). Even further, any PDLC such as that of Ferguson has some degree of angle selectivity, as off angle sees a longer path length through the liquid crystal layer and

therefore an increased probability of scattering, so the dear would read on thousands of references such as the Ferguson reference. Those references are not applied because the reading of the claim applied by applicant is not considered reasonable. Even further, for the absorbing means, applicant again points to the same liquid crystal layer as for the other means above, which again is unreasonable and manifestly not equivalent means to an absorbing layer. So applicant uses the same layer for three claimed elements- a wholly unreasonable interpretation.

This paragraph is essentially a repeat of what the Examiner stated previously in the office action and to which applicants have responded above.

The Examiner's comments on pages 8 starting with the heading "Affidavit/Declaration under 1.131" to the end of the Office Action have been previously responded to in prior responses on this response above. For the reasons given herein and above applicant disagrees with the Examiner.

In view of the changes to the claims and the remarks herein, the Examiner is respectfully requested to reconsider the above-identified application. If the Examiner wishes to discuss the application further, or if additional information would be required, the undersigned will cooperate fully to assist in the prosecution of this application.

Please charge any fee necessary to enter this paper and any previous paper to deposit account 09-0468.

If the above-identified Examiner's Action is a final Action, and if the above-identified application will be abandoned without further action by applicants, applicants file a Notice of Appeal to the Board of Appeals and Interferences appealing the final rejection of the claims in the above-identified Examiner's Action. Please charge deposit account 09-0468 any fee necessary to enter such Notice of Appeal.

In the event that this amendment does not result in allowance of all such claims, the undersigned attorney respectfully requests a telephone interview at the Examiner's earliest convenience.

Applicant's disagree with the Examiner's comments in regards to the Applicants 1.131 Affidavit. Notwithstanding Applicant does not have to rely on it since the '753 Application is a constructive reduction to practice of Claims 17-20.

MPEP 713.01 states in part as follows:

Where the response to a first complete action includes a request for an interview or a telephone consultation to be initiated by the examiner, ... the examiner, as soon as he or she has considered the effect of the response, should grant such request if it appears that the interview or consultation would result in expediting the case to a final action.

Respectfully submitted,

By: 

Dr. Daniel P. Morris, Esq.
Reg. No. 32,053
Phone No.: (914) 945-3217

IBM Corporation
Intellectual Property Law Dept.
P. O. Box 218
Yorktown Heights, New York 10598